INVITED COMMENTARY

Janet T. Powell, MD, and **David Epstein, PhD,** *London and York, United Kingdom*

The paper reports that, over a 2-year time horizon, in the Open Versus Endovascular Repair (OVER) trial, endovascular repair was cost-effective.[1] There was little difference in outcomes between the open repair and endovascular repair (EVAR) groups (whether measured by survival or by quality-adjusted life years). However, the OVER trial found a mean difference of about $5900 in the costs of the primary hospitalization: $37,000 for EVAR and $42,900 for open repair. The high cost per patient of endovascular kit (about $14,000) was more than offset by cost savings in intensive care, length of stay, laboratory tests, and use of medications. This initial difference in costs is maintained over 2 years, although becomes less statistically significant, perhaps because of attrition from the trial.

Are these findings either generalizable or relevant for current clinical practice in the United States and in other health systems? In some respects, the OVER trial should be more representative of current practice than the earlier large-scale trials, EndoVascular Aneurysm Repair trial 1 (EVAR 1) and Dutch Randomised Endovascular Aneurysm Management (DREAM).[2,3] The recruitment period in OVER was 3 years later. Experience with EVAR has increased, devices improved, and the length of stay after EVAR has been reduced greatly since the earlier trials. However, it may be difficult to transfer the results from this study to other settings.

The OVER trial was conducted only in Veterans Administration (VA) hospitals, and nearly all the patients were male. The aneurysm size was smaller on average than previous trials. The results are only reported up to 2 years. The 10-year results from EVAR 1 indicated that complications, reinterventions, and aneurysm-related mortality were considerably greater after endovascular repair during long-term follow up. Longer-term results are awaited from the OVER trial.

What is most surprising is the high cost of the primary hospitalization in the VA system. The cost exceeds the average Medicare reimbursement for abdominal aortic aneurysm repair in the United States by about $10,000.[4] Medicare payments were substantially higher at hospitals with high complication rates.[4] There is no direct evidence of high complication rates in the OVER trial, although there is a suggestion that complication rates may have been high after open repair, with this group having excess hospital stay awaiting rehabilitation beds. Perhaps the skills for open repair are waning as endovascular skills improve. The cost of primary hospitalization in the OVER trial was almost double the estimate from EVAR 1, after allowing for differences in general price levels between the two countries. International comparisons of costs are notoriously difficult, as resource use and unit costs are partly determined by a wide set of factors beyond the control of hospitals. Using cost-to-charge ratios may not reflect the true opportunity costs of the resources used. Nevertheless, the question remains: why is aneurysm repair so expensive in VA hospitals? The findings reported in this issue of the journal may not be translatable even to other, non-VA hospitals, in the United States.

REFERENCES

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